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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,513	12/20/2007	Torben Melsen	P18557US1	7479
27045	7590	06/07/2011	EXAMINER	
ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024			HARLEY, JASON A	
			ART UNIT	PAPER NUMBER
			2468	
			NOTIFICATION DATE	DELIVERY MODE
			06/07/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/596,513	Applicant(s) MELSEN, TORBEN	
	Examiner JASON HARLEY	Art Unit 2468	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(c)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

This communication is in response to the application filed on 8/20/10 in which claims 1-18 have been presented for examination.

Claim Rejections - 35 USC § 112

1. Claim1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.
2. The claim limitation “for providing” uses the phrase “means for” or “step for”, but it is modified by some structure, material, or acts recited in the claim. It is unclear whether the recited structure, material, or acts are sufficient for performing the claimed function which would preclude application of 35 U.S.C. 112, sixth paragraph, because it states a DSLAM for providing.

If applicant wishes to have the claim limitation treated under 35 U.S.C. 112, sixth paragraph, applicant is required to amend the claim so that the phrase “means for” or

Art Unit: 2468

“step for” is clearly **not** modified by sufficient structure, material, or acts for performing the claimed function.

If applicant does **not** wish to have the claim limitation treated under 35 U.S.C. 112, sixth paragraph, applicant is required to amend the claim so that it will clearly not be a means (or step) plus function limitation (e.g., deleting the phrase “means for” or “step for”).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4, 10, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Owens et al. U.S. PG Pub No. (2003/0039244) in view of Sundaresan et al. (2002/0101881).

Art Unit: 2468

As to claim 1, Owens teaches an Ethernet Digital Subscriber Line Access Multiplexer (DSLAM) for providing dynamic service selection and end-user configuration of service bindings in a digital communication system, said Ethernet DSLAM comprising: means for receiving login credentials and a service request from an end-user device; means for authenticating the login credentials through an authentication server (Owens, par 0050, 0051). The paragraph shows a point to point protocol Ethernet network using DSLAM to provide a service having a means for receiving a user identifier or passwords through a server for authentication.

Owens show configuring the Ethernet DSLAM to provide an advance service binding corresponding to the requested service (par 0043-0046), utilizing a plurality of attributes received from the authentication server including an identification of an access network for the requested service, and an identification of a Permanent Virtual Circuit (PVC) associated with the end-user device (par 0005, 0006, 0011-0017, 0024, 0025, 0047, 0048, 0062). The paragraphs show identifying a user's identification of a local area network and PVC on DSL, and utilizing attributes such as identification of an access network for the requested service, and an identification of a Permanent Virtual Circuit (PVC). The paragraphs also show DSLAM is used to provide voice, video, and data upon subscriber's requests.

Owens also show means for training a bridging network terminal (NT) having a plurality of PVCs to utilize the identified PVC for sending upstream traffic from the end-user terminal to the Ethernet DSLAM, said training means including means for sending initial downstream traffic from the Ethernet DSLAM to the end-user device utilizing the

Art Unit: 2468

identified PVC (par 0006, 0012-0017, 0040). The paragraphs show bridging a terminal to PVCs to utilize upstream and downstream traffic.

Owens fails to show a local DSL loop and utilizing a plurality of attributes received from the authentication server wherein by configuring the Ethernet DSLAM to provide the advanced service binding a Broadband Remote Access Server (BRAS) is no longer needed.

In an analogous art Sundaresan show a local DSL loop (par 0114, 0123) and wherein a plurality of attributes received from the authentication server wherein by configuring the Ethernet DSLAM by configuring the Ethernet DSLAM to provide the advanced service binding a Broadband Remote Access Server (BRAS) is no longer needed (Sundaresan, par 0014, 0018, 0020, 0023, 0149, 0150). The paragraphs show the DSLAM provides services using user identity information without BRAS, and using a local DSL loop.

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Owens and Sundaresan DSLAM providing the service prevents a single point of failure, poor downward scalability and poor upward scalability.

As to claim 4, Owens and Sundaresan convey the Ethernet DSLAM of claim 1, wherein the means for authenticating includes a RADIUS client that communicates with an

Art Unit: 2468

external RADIUS authentication server (Owens, par 0047, 0048). The paragraph shows the authentication servers use Radius for communication which use shown to separate or as a single server.

As to claim 10, Claim 10 is a claim to a method to carry out the DSLAM of claim 1. Therefore claim 10 is rejected under the same rationale set forth in claim 1.

As to claim 13, Claim 13 is a claim to a method to carry out the DSLAM of claim 4. Therefore claim 13 is rejected under the same rationale set forth in claim 4.

Claim Rejections - 35 USC § 103

3. Claims 2, 3, 5-9, 11, 12, 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Owens et al. U.S. PG Pub No. (2003/0039244), Sundaresan et al. (2002/0101881) in view of Holmgren et al. U.S. Patent No. (7,277,442).

As to claim 2, Owens and Sundaresan describe the Ethernet DSLAM of claim 1, wherein the end-user device has a Media Access Control (MAC) address (par 0052).

Art Unit: 2468

Owens show where the device has a MAC address using DSLAM, and Owens fails to show the requested service is accessed through a Service Virtual Local Area Network (S-VLAN), and the Ethernet DSLAM includes means for mapping the S-VLAN for the requested service to the MAC address for the end-user device.

In analogous art Holmgren show the requested service is accessed through a Service Virtual Local Area Network (S-VLAN), and the Ethernet includes means for mapping the S-VLAN for the requested service to the address for the end-user device (Holmgren, col 1, ln 6-9, col 4, ln 39-50, col 5, ln 45-50). It is shown where a service is accessed through an S-VLAN and where the Ethernet network includes mapping a service to an address.

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Owens, Sundaresan and Holmgren because a way of conserving mapping assignments for internetworking Ethernet and ATM networks by mapping VLAN identifiers to PVCs.

As to claim 3, Owens and Sundaresan present the Ethernet DSLAM of claim 1, wherein the means for receiving login credentials and a service request from an end-user device includes an Ethernet DSLAM (par 0051). The paragraph shows a point to point protocol Ethernet network using DSLAM. Owens fails to show User Virtual Local Area Network (U-VLAN) through which the Ethernet communicates with the end-user device, and the requested service is accessed through a Service Virtual Local Area

Art Unit: 2468

Network (S-VLAN), and the Ethernet DSLAM includes means for mapping the S-VLAN for the requested service to the U-VLAN for the end- user device.

In an analogous art Holmgren show User Virtual Local Area Network (U-VLAN) through which the Ethernet communicates with the end-user device, and the requested service is accessed through a Service Virtual Local Area Network (S-VLAN), and the Ethernet DSLAM includes means for mapping the S-VLAN for the requested service to the U-VLAN for the end- user device (Holmgren, col 5, ln 39-55). The column shows a customer VLAN which the Ethernet communicates with to map SVLAN to the customer VLAN.

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Owens, Sundaresan and Holmgren because a way of conserving mapping assignments for internetworking Ethernet and ATM networks by mapping VLAN identifiers to PVCs.

As to claim 5, Owens illustrates an Ethernet Digital Subscriber Line Access Multiplexer (DSLAM) or providing dynamic service selection and end-user configuration of service bindings in a digital communication system, said Ethernet DSLAM comprising: a plurality of subscriber ports for receiving login credentials and service requests from end-user devices, and for communicating data traffic to and from the end-user devices,

Art Unit: 2468

wherein an identified subscriber port communicates with an identified end-user device (Owens, par 0049-0051). The paragraph shows a point to point protocol Ethernet network using DSLAM to provide a service having a means for receiving a user identifier or passwords through a server for authentication.

Owens show a RADIUS client that sends login credentials and a service request from the identified end-user device to an external RADIUS server for authentication and receives a plurality of attributes from the external RADIUS server, and utilizes the attributes to configure the Ethernet DSLAM to provide an advance service binding corresponding to the requested service, and an identification of a Permanent Virtual Circuit (PVC) on a local DSL loop associated with the end-user device a Service Selection Controller that receives the attributes from the RADIUS client (par 0005, 0006, 0016, 0017, 0025, 0043-0047, 0062). From the applicant's specification the service selection controller is located in side the DLSAM. The paragraph shows the authentication servers use Radius for communication and configuring and communicating with an Ethernet DSLAM to provide identification for PVCs on DSL. The paragraphs also show DSLAM is used to provide voice, video, and data upon subscriber's requests.

Owens fails to show a traffic mapper that maps data traffic between a plurality of Service Virtual Local Area Networks (S-VLANs) and the subscriber ports; said attributes including an identification of an S-VLAN through which the requested service is accessed and sends mapping control information to the traffic mapper, thereby enabling

Art Unit: 2468

the traffic mapper to establish a service binding between the identified end-user device and the S- VLAN through which the requested service is accessed.

In an analogous art Holmgren show a traffic mapper that maps data traffic between a plurality of Service Virtual Local Area Networks (S-VLANs) and the subscriber ports; said attributes including an identification of an S-VLAN through which the requested service is accessed and sends mapping control information to the traffic mapper, thereby enabling the traffic mapper to establish a service binding between the identified end-user device and the S- VLAN through which the requested service is accessed (Holmgren, col 1, ln 6-34, col 4, ln 39-50, col 5, ln 45-50). It is shown where a service is accessed though an S-VLAN, which is also shown to communicate through an Ethernet network to access Vans on a per port basis, and it is shown where the Ethernet network includes mapping a service to an address.

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Owens and Holmgren because a way of conserving mapping assignments for internetworking Ethernet and ATM networks by mapping VLAN identifiers to PVCs.

Owens and Holmgren fails to show utilizing a plurality of attributes received from the authentication server wherein by configuring the Ethernet DSLAM to provide the advanced service binding a Broadband Remote Access Server (BRAS) is no longer needed.

Art Unit: 2468

In an analogous art Sundaresan show wherein by configuring the Ethernet DSLAM to provide the advanced service binding a Broadband Remote Access Server (BRAS) is no longer needed (Sundaresan, par 0014, 0018, 0020, 0023) the paragraphs show the DSLAM provides the advanced service binding.

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Owens, Holmgren, and Sundaresan DSLAM providing the service prevents a single point of failure, poor downward scalability and poor upward scalability.

As to claim 6, Owens, Sundaresan, and Holmgren define the Ethernet DSLAM of claim 5, wherein the service binding is established utilizing the IEEE802.1x protocol. From applicants specification IEEE802.1x is an integrated part of Windows XP operating system (Owens, par 0015). The paragraph shows using Windows operating system.

As to claim 7, Owens, Sundaresan, and Holmgren create the Ethernet DSLAM of claim 5, wherein the service binding is established utilizing the Point-to-Point Protocol over Ethernet (PPPoE) protocol (Owens, par 0008). It is shown utilizing Point-to-Point Protocol over Ethernet.

As to claim 8, Owens, Sundaresan, and Holmgren expose the Ethernet DSLAM of claim 5, further comprising a Dynamic Host Configuration Protocol (DHCP) server that

Art Unit: 2468

answers DHCP requests sent by the identified end-user device prior to establishment of the service binding, said DHCP server sending a temporary configuration and a short lease time to the identified end- user device (par 0019, 0088, 0090). The paragraph shows using a DHCP server establishing a temporary configuration and having a lease time to authenticate a user.

As to claim 9, Owens, Sundaresan, and Holmgren explain the Ethernet DSLAM of claim 8, wherein the DHCP server ignores DHCP requests sent by the identified end-user device after establishment of the service binding, thereby forcing the end-user device to broadcast a DHCP discover message which is passed on to a second DHCP server in the through which the requested service is accessed (Owens, par 0055, 0063, 0065). The paragraphs show sending a broadcast of discover message by a DHCP server.

Owens fails to show using SVLAN. In analogous art Holmgren shows using SVLAN (Holmgren, col 4, ln 39-50, col 5, ln 45-50). It is shown where a service is accessed though an S-VLAN

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Owens, Sundaresan, and Holmgren because a way of conserving mapping assignments for internetworking Ethernet and ATM networks by mapping VLAN identifiers to PVCs.

Art Unit: 2468

As to claim 11, Claim 11 is a claim to a method to carry out the DSLAM of claim 2.

Therefore claim 11 is rejected under the same rationale set forth in claim 2.

As to claim 12, Claim 12 is a claim to a method to carry out the DSLAM of claim 3.

Therefore claim 12 is rejected under the same rationale set forth in claim 3.

As to claim 14, Claim 14 is a claim to a method to carry out the DSLAM of claim 5.

Therefore claim 14 is rejected under the same rationale set forth in claim 5.

As to claim 15, Claim 15 is a claim to a method to carry out the DSLAM of claim 6.

Therefore claim 15 is rejected under the same rationale set forth in claim 6.

As to claim 16, Claim 16 is a claim to a method to carry out the DSLAM of claim 7.

Therefore claim 16 is rejected under the same rationale set forth in claim 7.

As to claim 17, Claim 17 is a claim to a method to carry out the DSLAM of claim 8.

Therefore claim 17 is rejected under the same rationale set forth in claim 8.

As to claim 18, Owens, Sundaresan, and Holmgren demonstrate the method of claim 14, further comprising the steps of: receiving by the Ethernet DSLAM, a Dynamic Host Configuration Protocol (DHCP) request from the identified end-user device; determining

Art Unit: 2468

by the Ethernet DSLAM, whether the service binding has been established; upon determining that the service binding has not been established, sending an answer to the end-user device from a DHCP server in the Ethernet DSLAM (Owens, fig 1, par 0019, 0051, 0052, 0074). The paragraphs show using a DSLAM server to serve and receive DHCP request and determining that the service whether or not service has been established.

Owens show wherein the answer includes a temporary configuration and a short lease time; and upon determining that the service binding has been established, ignoring the DHCP request, thereby forcing the end-user device to broadcast a DHCP discover message which is passed on to a second DHCP server through which the requested service is accessed (par 0019, 0055, 0063, 0065, 0088, 0090). The paragraph shows using a DHCP server establishing a temporary configuration and having a lease time to authenticate a user, and sending a broadcast of discover message by a DHCP server

Owens fails to show using SVLAN. In analogous art Holmgren shows using SVLAN (Holmgren, col 4, ln 39-50, col 5, ln 45-50). It is shown where a service is accessed through an S-VLAN

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Owens, Sundaresan, and Holmgren because a way of conserving mapping assignments for internetworking Ethernet and ATM networks by mapping VLAN identifiers to PVCs.

Response to Arguments

4. Applicant's arguments filed 4/20/2011 have been fully considered but they are not persuasive.

- 1) In the Applicant's previous response, it was argued that Owens discloses a conventional DSLAM and utilizes a conventional BRAS to configure the advanced service binding. At the bottom of page 3 of the Office Action, the Examiner states that Owens shows configuring an Ethernet DSLAM to provide an advanced service binding in paragraph 0045. However, paragraph 0045 says absolutely nothing about an Ethernet DSLAM providing the advanced service binding. In fact, paragraph 0045 does not even mention a DSLAM. Instead, paragraph 0045 discusses the BRAS, which the Applicant's claimed invention eliminates.
- 2) On page 4, next to last paragraph, the Examiner seems to contradict himself by stating that Owens FAILS to show an Ethernet DSLAM that receives attributes from the authentication server and uses them to provide the advanced service

Art Unit: 2468

binding. He contends this is shown by Sundaresan in paragraphs 0014, 0018, 0020: and 0023.

- 3) These paragraphs, however, do not relate to this feature. In fact, it seems as though the Examiner is citing paragraphs from another, totally unrelated document.
- 4) Thus, the combination of Owens, which simply shows the state of the art as described in the Applicant's Background section, and Sundaresan, which seems to be totally unrelated to the claimed invention, does not teach or suggest the claimed invention. Therefore, the withdrawal of the § 103 rejection and the allowance of claims 1, 4, 10 and 13 are respectfully requested.

The examiner respectfully disagrees Owens show configuring the Ethernet DSLAM to provide an advance service binding corresponding to the requested service (par 0043-0046). The paragraphs show DSLAM is used to provide voice, video, and data upon subscriber's requests.

Also office action states Owens fails to show a local DSL loop and utilizing a plurality of attributes received from the authentication server wherein by configuring the Ethernet DSLAM to provide the advanced service binding a Broadband Remote Access Server (BRAS) is no longer needed. Owens disclose DSLAM providing a services utilizing a server and in Sundaresan doesn't disclose the use of a BRAS server therefore it is not a contradiction.

Art Unit: 2468

The rationale to modify or combine the prior art does not have to be expressly stated in the prior art; the rationale may be expressly or impliedly contained in the prior art or it may be reasoned from knowledge generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law. Please review MPEP 2144 (I.).

- 5) Applicant argues the Examiner relies on the combination of Owens and Sundaresan for showing the limitations of base claims 1 and 10 from which claims 2, 3, 11, and 12 depend. However, as noted above, Owens and Sundaresan fail to disclose or suggest the limitations of the base claims. Holmgren is cited for showing limitations recited in the dependent claims, but also fails to disclose or suggest an Ethernet DSLAM configured to provide an advanced service binding for a requested service utilizing a plurality of attributes received from an authentication server. Claims 2, 3, 11, and 12 depend from base claims 1 or 10 and recite further limitations in combination with the novel and unobvious elements of claims 11 and 10. Therefore, the allowance of claims 2, 3, 11, and 12 is respectfully requested.
- 6) Independent claims 5 and 14 also recite an Ethernet DSLAM configured to provide an advanced service binding for a requested service utilizing a plurality of attributes received from an authentication server: These limitations are not taught or suggested by the combination of Owens, Sundaresan, and Holmgren.

Art Unit: 2468

Therefore, the withdrawal of the § 103 rejection and the allowance of independent claims 5 and 14 are respectfully requested,

- 7) Claims 6-9 and 15-18 depend from base claims 5 and 14, respectively, and recite further limitations in combination with: the novel and unobvious elements of their base claims. Therefore, the allowance of claims 6-9 and 15-18 is respectfully requested.

The examiner respectfully disagrees Owens show configuring the Ethernet DSLAM to provide an advance service binding corresponding to the requested service (par 0043-0046). The paragraphs show DSLAM is used to provide voice, video, and data upon subscriber's requests.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON HARLEY whose telephone number is (571)270-5435. The examiner can normally be reached on Monday- Friday 7:00 am-4:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joe Cheng can be reached on (571)272-4433. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2468

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)? If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JH

/IAN N. MOORE/

Supervisory Patent Examiner, Art Unit 2469